Notebook, PN-07-02-04

This pocket notebook contains two dated entries from February 1907. It was used by Edison for notes on experiments and other tasks to be performed. Many of the proposed experiments pertain to storage batteries, phonographs, and related chemical research. Included are entries describing groups of test cells, outlining chemical experiments with tungsten and tungstate compounds, and remarking upon a "new stuff" made by Jonas W. Aylsworth (possibly a phenolic resin). There is also a drawing of a phonograph reproducer, with a notation that it was given to patent attorney Frank L. Dyer. Among the employees mentioned in relation to experimental work or business matters are Thomas D. Greenley, Otto Groethe, Emil Herter, Frederick P. Ott, John F. Ott, Ludwig F. Ott, and Herman Wolke. The front cover is stamped "From W. D. Andrews Talking Machines, Bicycles, Athletic Goods, Syracuse, N.Y." and "Thomas A. Edison." The pages are unnumbered. Approximately 40 pages have been used.

Drs -
Formation New Jersey Hy[illegible] [illegible]
G Roosevelt
J Bernheim
Compt Rendu
106 1530 - 1532
Make all of them

Look up $ (and and)
Consol agreement
+ Cancel order

~~Water Tower + press in Hydraulic - dry tree if ever the powder in a few minutes~~

~~D. G. [illegible]~~ OSC Co. work mean work on fuelling or taking out powering powder KOH -

Dig to take out 5, + al, mg from KOH, fuling through $NaOH_2$ + other devices - fuel coking + forming -

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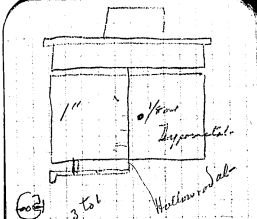
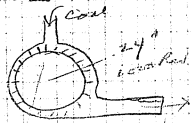
2934-5 = 50 7 2.0 Ws
Heat-treat =

Jolin make an adjustable pull back spring on the weight of the pendulum + double the thickness of weight or then try washer Ring mica disc from plating work - that make 3 or 4 disc 1/4 1/2 3/4 5
1/1000 1st 1/1000 2nd 2 3rd
3 4th -
Thick material - class
~~Heat 3 to 1~~ 1/2 inches
~~opening~~ -

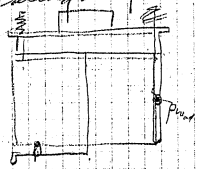


Wire dia

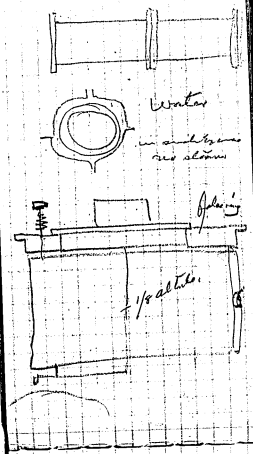


Chalked iron
Copper pellets.

See if solum has
corr. Cathode for
plating decomposition



Impermeable, adjusting to
seasonal weight.



Make some Tungstate
from Ferro or
Ferron, Red Oxide
use just as it is —
no process in
Molybdenum ~~tungst~~ Reduction by H
Sulphate Tungsten
by dropping Na_2WO_3
into dilute H_2SO_4
finely as white powder

Tungstate of Sodium
$Na_2O.2WO_3$ by
adding to fused tungstic
of Na_2WO_3 which together
~~and~~ order and it will
take up H_2SO_4 to H
at red heat

~~gold~~ decompose out
with compound tungstates
by H_2O —
gold yellow powder
+ Reg Cubic metallic
like + readily resembles
gold | not | affected
by alkalies or acids
except HF —

It cannot be prepared by
uniting tungsten dioxide
with the Dioxide WO_2

Metatungstic acid very
sol water

Made by boiling
Tungstic acid hydrated
with Reg alkaline tungstates

Most metatungstates
are sol in water
some very sol —

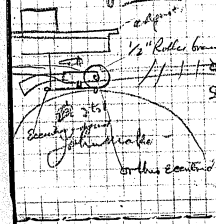
Metal — tungstate with,
boil Reg Met by WO_3
with hydrated tungstic
acid. only green may
tungstate & dissolves
boil to syrup and WO_3
separate out + filtrate
deposits Crys of meta
salt

K + Na salts same way

Na Salt 10 pts Crys dissolve
in 1 pt H_2O Spec g
3.019 ?

Tungsten Bronze Yellow
& Vanadiet –
Schmitzler Deutsch. Polytech
Jnl CCXI 484 –

See cabinet VI Nitrides
the process of Rareation
Reg. very thus 2nd
was given –



Pure Sulphate from Fe_2O_3 from
Oxalate – K Sulphate, K Nitrate
Na_2CO_3 Borax, ~~[illegible]~~
$CaCl_2$ $ZnCl_2$ KOH, KCy
KCl_O – K Phosphate, K Carbonate
KCl KH_2 Na_2WO_3 –

also Hydrochlorate Iron treated
Cobalt Nickel & chlorides incl
+ R by H. ——

Fe Sulp + Na Sulp both dry
are mixed in exactly equal
proportions + put in a crucible
in red hot furnace – Cyl. lid
Mass kept in fusion until
until SO_2 not evolved
Cooling off forced mass
extracted Water + Hydrochloric
solution of the mass is from
4 very fine crystal clusters Dabs
Obtl Jorbsot Mallinckrodt
Counts make CP Iron

Same Company Magnesium
reduces CP mint from plants in
Zeeman Wells Lake - weak well -
Mentioned Wells (2) —

Primos Chemical
Primos Penna
Tungsten - North
prices No2 WO3 Elec

Open one end Shell
pocket + pk Lake Ni Cubes
in Sections,
also 2 Corrugated
aluminum —

Also 2 Each
~~Ber~~ Ferro Ni Briquette
50 75 100 125 150 200
aluminum —

Mentle 6 groups
Mifl 003 2400, 2 bit

group series —
3 3½ 4 4½ 5
21 Hole, 26x30 — + 2400
also 21 + 26x30 +
2400 with 5 rings —

Put index on side
feeds from group
sideways

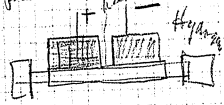
group -
of 12 3½ · 10 M 24 -
2400. 005 6 wire nat. ground ✓
A 4 rings B ditto 5 rings ✓
C Drop 12 tubes 2400 005 6 wire
ground - 4 rings
D ditto 5 rings ✓
E Drop 12 tubes 26 X 30 005 ✓
bare ground 4 rings
F ditto 5 rings ✓
G Drop 12 tubes 21 hole 005 ✓
bare ground 4 rings.
H ditto 5 rings ✓
K Drop 12 tubes funnel and tubes ✓
4 rings L ditto 5 rings ✓
Drop A to L with Spiral
Cables -

also Drop after running
on a new batch - this
½ or individual drop out
Cross line out all above
Spiral tubes -

Order Linen Towels
Etc agst out drawings
for Greenley Coffee
Mr Blake Soft & wash
Ralph A make
1 wash dried towels
2 9
3 11

find out how long
KOH 6 gm in 5 ß bricks
also show work
at different Spec g
also K_2CO_3 —

Dolly Try Thermit to weld
tubes Fe_2O_3 from oxide +
Al bronze powder — colors
powder coll. fluorescence



Trabert Try this

Recess for the lap —
possibly necessary in plunge
or just the opposite

21 Holes Mn flake
10 grms KCl
Punched holes 10
KCl —

Try Mi Monobasic Cathode in Tungstate Soda of it deposits blue ox also try Metal paratungstate which are more likely to work if deposits blue then reduce ~~or~~ rather change over now then soak in the Na WO sol several ~~months~~ hours & then change current to deposit blue ox with metallic non-

Make a Soluable Tungstate of Iron & then use it to soak Fe_2O_3 — also to mix with oxalate, etc

Ammono Ferric Tungstate is very sol in water

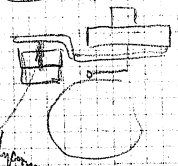
Possibly Nickel Ferric Tungstate are also sol

When Tungstate of ammon is heated to redness it decomposes the Blue Ox WO_2WO_3

Cooked up this with Fe_2O_3 also Ox salt Fe

[illegible]

Dyerpatent the
new blanca for
changing WO to
2nd Hand
phono abroad



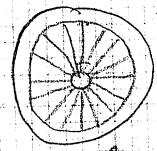
g/porm
Anode part
possibly springs
hold down WT

7 2 80 Sn 20 Self Hemp
7 2 80 WO 20 "
on Hat Reel -
Reverse once wood

John to make plating
blank for anode
or dies for phono
Valuta 4 anoda

greenly to plate

also



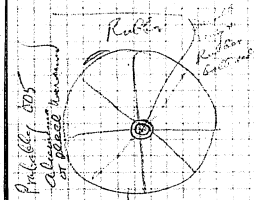
deep Corrugations

John Catt to give
tried Catt when to
make tubes, stamit
seamless — distinct
tubes in frame

Recd J R Calbraith made
that [illegible] would
[illegible] [illegible] —

on Bag Weight
Repeder as soon
as finished
add a dash,
put glycerine
& adjust so
only 10 grm
required or 50 pressure
on back — If the
dont go put prepared
wt on when
a Conveyoring spr.
pulling dia up
To balance wt hand

Then will make
it similar —
after trying segments
with shoulder dia
Make 2" Cor

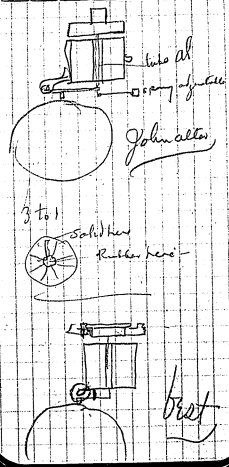


Ultted OD!
+ Rubber pushed down

also 4 segments
of the 8 OD Cap
+ do away with
slots + rubber
over cohake
surface

ask Dr. How
he made the Sample
72 Mn
test our Fe by
dis in HCl +
prep by MAA
+ the made MA 702
on MAA 702

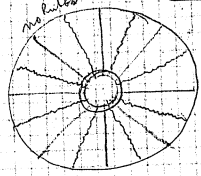
Make up new pkt
Fe 65 Sn 35
give to Halland
to change +
then dicolling —
give KOH to Dr G
Dr Tu —
then Reversed
give KOH to Dr
Vo



Rubber band

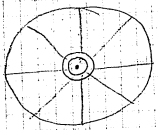
900 D.S.

no rubber



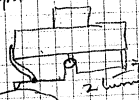
2 dia 1 split 4 section
one over this 8 section
staggered to close split.

also



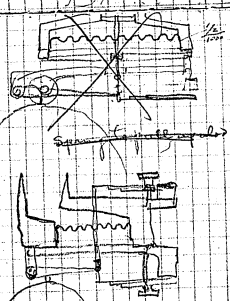
also 1 dia split 002
apart (thin metal pipe)
over whole or one piece
very thin don't let pieces
come with 3/4 of 2 layer
use thumbnut rivet
we got some from Dom last.

Change the section Sophin
Repair To!



Gw a Moved Reg Record
Both New stuff loaded
with Examples to discover
the Mistake, as I think
we have at last off the
0006 examples by
Electricity

in 1874 or 5 Med
Magazine Old Record
published Electric
force possibly the
popular science or Van Nostrand
Mag.



good Nat & Sul
300 clamps
Deep with 5 pins
Must have at 2207
Cost add 15 %
Extra 200 made 15504
Over

Gatling use this 160 on 200
matching 200 —

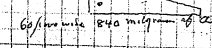
With 160 grain on ball 5383 feet
per sec mob - .002 mercurial
or 13 inch vacuum.

w slower speed higher or accepting
the over time, water, if flow
the pressure wipes them out.

if ... twice as long
it will take longer time to
wipe out.

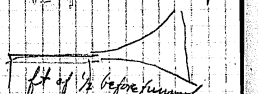
Weight with barrel fell in
160 miles 1" down the
ground.

Weight magnum dia 1"
10 deg 160 milg - 1.2" long
of tube bullet .003 thick outside
15 milg Al. Lead 1.25" 350 grs long



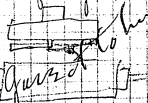
60 grs wide 840 milgrams of Al

weight total for heavy drag etc
if magnum about 600 milgr



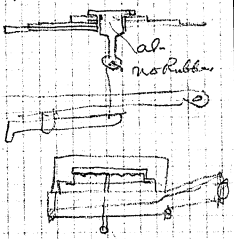
fit of 1/2 before summit
to get purchase on air
after

Draw out for Dyer



Entering angle 45 deg

for Ka Spirit dem Plum



Piston dampening
for the cordless
Sept 4 1907

2 groups - 26 x 30 Spiral
1st Green under bell
Jar with water all
night -
2nd Dried 3 hours on
paper on hot plate
used hot. 26 x 30 spiral

test that good KCl
Co little thick drill
pipiff with $AgNO_3$
OR hot KCl

see if 4 hours 0035
Spread on 33%

Sell Walter Miller glass
spirit 1/2 # 4 to 6
Lutro strips funnel
Sounds for Piano

John att atty and mr Billy
Trundel Rickford
Have Rogers come w/ eco and
after Hottys on fellow so comm
see fellows —
Drawing was pattern spoke
with weight roller

Geo Moore —

Julian about machining
another measurement to
give more travel to
slaughtering
to try support punch
Rubber see what
size sheet rubber
necessary —

Fred att lengthen & have
less width to grow
fiber reciprocator

Louis att cabt Copper
also tell Ralph
7½ Nickel shield hood
Copper for high ratio —

The good Tin 7½ now so why
dipped reciprocate
Customer wants more Ceballos
tubes

try Ni flake group
1½ spiral wash
Hard Rubber Shavings

Ceballos wash 5A Mulg
Sulphur

Emf - use aluminum
Holder for chalk
Cylinder for
Direct Currents -

Open up after
drying a soaper
distilled H_2O
The iron that
was ~~understood~~
Iron work Hg
Cu - get used up
a Gr. Ammon

Walke the 2
Home mandrils
fit new devices
to them -

~~See Hedrick~~
~~Hh 25~~

1 See Walke about the mandrils
~~2 Dig up about Peters Cement~~
~~what to send to me~~
3 - Enlarge Carpenter's pal
~~for Hg - Cu - aluminum~~
4 get 100 -
5 . 00 -

4th group 33 100 mlg Sul
21 200 "
+ Under on Spec - Sul
see if p[illegible] Sand Rub
1 - 100 mlg Dilution in
Entered on Spec Sol Book

~~Coal Book~~ -

7 L Off report twice weekly
now send Sample S Lake
Numbers + Ash Content

8 = Ice Water Gr good Co
greatly -
also to ~~take~~ several
pound ~~test~~ Mr Florio
for Johns Coal Machine

9 = Put 5 cs mlg S in
33 + put carbol libs
at end month draw

off a little KOH +
have Dr 9 test for
Sulphate or Sulphide
when I return will
weigh the Sulphur

10 Dyer - 9 ~~do~~ not agree
phlow ~~[illegible]~~ dust 1/2
phosp ~~Rock~~ -

11 =

Kruger Andelson
25 Belmont Ave
7 pm

A 2.58

July 1 72 5,250,000

3,750,000 cm

62.500

12 - 125000
625000
750,000

296 | 7.875

16 | 100,000 (62.500
96
47
30
32
80
80

1 mil 72 7847 miles

1000 | 7,847 533 - (7847
7 000
847 5

3 000 000

7847 | 1 000 000 000
3 5 000 000 000
3 7 6 2 5 000 000 000 (7847 533
3 500 000 000
3 122
378
3 0 0
2 1 8 4
1 7 8 0
3 9 6 2
3 2 3 0
2 3 3 2
1 6 6 3

Aluminum
22000 cu mil
To 1 ~~[illegible]~~ Mil

AD-C20-C20-Nd